THAT WHICH IS CLAIMED IS:

1. In the processing of poultry for consumption as a meat product, the improvement which comprises causing an eviscerated poultry carcass to be subjected to inside-outside washing with a microbiocidal composition consisting essentially of

a) water having a microbiocidally-effective bromine residual derived from one or more N,N'-bromochloro-5,5-dialkylhydantoins; or

b) water having a bromine residual derived from at least one alkali or alkaline earth metal bromide and at least one alkali metal hypohalite or alkaline earth metal hypohalite; or

c) water having a bromine residual derived from a halogen stabilizer, a bromine source and an alkali metal base or alkaline earth metal base; or

d) water having a bromine residual derived from a mixture or combination of any two of a), b), and c), or of all three of a), b) and c);

the bromine residual being sufficient to provide microbiocidal activity without significant adverse effect upon the taste, odor, or appearance of the carcass.

2. The improvement as in Claim 1 wherein a mechanically transported series of poultry carcasses is automatically transported into apparatus in which the poultry carcass is subjected to said inside-outside washing.

3. The improvement as in Claim 2 wherein in said inside-outside washing, the interior cavity of a transported poultry carcass is penetrated by a spray probe so that (i) contaminants together with (ii) microbiocidal composition that is sprayed into the interior cavity of the poultry by the probe, drain from the carcass.

4. The improvement as in Claim 3 wherein in said inside-outside washing, pressurized sprays of the microbiocidal composition are applied to the exterior of the carcass so that the exterior of the carcass is thoroughly cleansed, and optionally the exterior of the carcass is also automatically mechanically scrubbed.

5. The improvement as in any of Claims 1-4 wherein the microbiocidal composition used is a composition of a).

6. The improvement as in any of Claims 1-4 wherein the microbiocidal composition used is a composition of b).

7. The improvement as in any of Claims 1-4 wherein the microbiocidal composition used is a composition of c).

8. In the processing of poultry for consumption as a meat product, the improvement which comprises:

A) causing (i) at least one unopened defeathered poultry carcass and (ii) a microbiocidal composition selected from the group consisting of a), b), c), and d) as described in Claim 1 to come into contact with each other, via either spraying, immersion, or other form of washing whereby the exterior of said carcass is wetted by such composition for a period of time sufficient to provide microbiocidal activity on the wet exterior of said carcass;

B) opening and eviscerating the carcass that was wetted in A);

C) causing the opened and eviscerated poultry carcass to be subjected to inside-outside washing with a microbiocidally-effective amount of microbiocidal composition selected from the group consisting of a), b), c), and d) as described in Claim 1.

9. The improvement as in Claim 8 wherein the at least one defeathered poultry carcass in A) is one of a series of unopened defeathered poultry carcasses that are mechanically transported to a station where the poultry carcasses and said microbiocidal composition come into contact with each other; wherein a series of carcasses wetted in A) are mechanically transported to a station where in B) the series of carcasses are opened and eviscerated; and wherein in C) a series of poultry carcasses opened and eviscerated in B) is caused to be subjected to said inside-outside washing.

10. The improvement as in Claim 9 wherein in said inside-outside washing, the interior cavity of a transported poultry carcass is penetrated by a spray probe which applies pressurized sprays of said microbiocidal composition to the interior cavity of the carcass so that (i) contaminants together with (ii) microbiocidal composition that is sprayed into the interior cavity of the poultry by the probe, drain from the carcass; and wherein in said inside-outside washing, pressurized sprays of the microbiocidal composition are applied to the exterior of the carcass so that the exterior of the carcass is thoroughly cleansed, and optionally the exterior of the carcass is also automatically mechanically scrubbed.

11. The improvement as in any of Claims 8-10 wherein said microbiocidal composition is a composition of a).

12. The improvement as in any of Claims 8-10 wherein said microbiocidal composition is a composition of b).

13. The improvement as in any of Claims 8-10 wherein said microbiocidal composition is a composition of c).

14. In the processing of poultry for consumption as a meat product, the improvement which comprises:

A) causing (i) a microbiocidal composition selected from the group consisting of a), b), c), and d) as described in Claim 1 and (ii) at least one unopened defeathered poultry carcass to come into contact with each other via either spraying, immersion, or other form of washing, whereby the carcass exterior is wetted by such composition for a period of time sufficient to provide microbiocidal activity of the wet exterior of the carcass;

B) opening and eviscerating the carcass that was wetted in A);

C) causing the eviscerated carcass to be subjected to inside-outside washing with a microbiocidally-effective amount of a microbiocidal composition selected from the group consisting of a), b), c), and d) as described in Claim 1; and

D) causing the carcass that was washed in C) to be placed in a chill tank and brought into contact with chill water which is composed of a microbiocidally-effective amount of a microbiocidal composition selected from the group consisting of a), b), c), and d) as described in Claim 1, said carcass being in said chill water for a period of time that is at least sufficient for the carcass to reach a pre-selected low temperature.

15. The improvement as in Claim 14 wherein to cause the contacting in A), said microbiocidal composition is sprayed on said defeathered poultry carcass.

16. The improvement as in Claim 14 wherein to cause the contacting in A), said defeathered poultry carcass is immersed in said microbiocidal composition.

17. The improvement as in Claim 14 wherein the washing in C) is effected by use of an inside-outside washing apparatus through which the carcass is conveyed.

18. The improvement as in Claim 17 wherein said washing apparatus comprises a spray delivery system adapted to apply said microbiocidal composition to the interior cavity of said carcass and another spray delivery system adapted to apply said microbiocidal composition to the exterior of said carcass.

19. The improvement as in Claim 14 wherein to cause the contacting in A), said microbiocidal composition is sprayed on said defeathered poultry carcass; and wherein the washing in C) is effected by use of an inside-outside washing apparatus through which the carcass is conveyed.

20. The improvement as in Claim 19 wherein said microbiocidal composition is a composition of a).

21. The improvement as in Claim 19 wherein said microbiocidal composition is a composition of b).

22. The improvement as in Claim 19 wherein said microbiocidal composition is a composition of c).

23. In the slaughter and processing of poultry as a meat product, the improvement which comprises:

A) causing (i) a microbiocidal composition selected from the group consisting of a), b), c), and d) as described in Claim 1 and (ii) at least one unopened defeathered poultry carcass to come into contact with each other before the carcass is opened, whereby the carcass exterior is wetted by such microbiocidal composition for a period of time sufficient to provide microbiocidal activity on the wet exterior of the carcass;

B) opening and eviscerating the carcass that was wetted in A);

C) causing the eviscerated carcass to be subjected to inside-outside washing with a microbiocidally-effective amount of a microbiocidal composition selected from the group consisting of a), b), c), and d) as described in Claim 1;

D) causing the carcass that was washed in C) to be placed in a chill tank and brought into contact with chill water which is composed of a microbiocidal composition selected from the group consisting of a), b), c), and d) as described in Claim 1, said carcass being in said chill water for a period of time that is at least sufficient for the carcass to reach a pre-selected low temperature;

E) causing the chilled carcass to be removed from the chill tank; and

F) before packaging the chilled carcass, causing (i) the chilled carcass and (ii) a microbiocidal composition selected from the group consisting of a), b), c), and d) as described in Claim 1 to come into contact with each other to effect microbiocidal control.

24. The improvement as in Claim 23 wherein to cause the contacting in F), said microbiocidal composition is sprayed on said chilled carcass, and wherein after the contacting in F) the chilled carcass is rinsed at least once with clear water.

25. The improvement as in Claim 23 wherein to cause the contacting in F), said chilled carcass is immersed in said microbiocidal composition, and wherein after the contacting in F) the chilled carcass is rinsed at least once with clear water.

26. The improvement as in Claim 23 wherein the washing in C) is effected by use of an inside-outside washing apparatus through which the carcass is conveyed.

27. The improvement as in Claim 26 wherein in said inside-outside washing apparatus, the interior cavity of said carcass is penetrated by a spray probe so that (i) contaminants together with (ii) microbiocidal composition that is sprayed into the interior cavity of the poultry by the probe, drain from the carcass.

28. The improvement as in Claim 27 wherein in said inside-outside washing, pressurized sprays of the microbiocidal composition are applied to the exterior of the carcass so that the exterior of the carcass is thoroughly cleansed, and optionally the exterior of the carcass is also automatically mechanically scrubbed.

29. The improvement as in any of Claims 1-7 wherein said bromine residual is in the range of about 3 to about 200 ppm (wt/wt) as total bromine.

30. The improvement as in any of Claims 14-22 wherein the microbiocidal composition used in A), the microbiocidal compositon used in C), and the microbiocidal composition used in D) each has, independently, a bromine residual in the range of about 3 to about 200 ppm (wt/wt) as total bromine.

31. In the processing of poultry for consumption as a meat product, the improvement which comprises:

A) causing an eviscerated poultry carcass to be subjected to inside-outside washing with a microbiocidal composition consisting essentially of

1) water having a microbiocidally-effective bromine residual derived from one or more N,N'-bromochloro-5,5-dialkylhydantoins; or

2) water having a bromine residual derived from at least one alkali or alkaline earth metal bromide and at least one alkali metal hypohalite or alkaline earth metal hypohalite; or

3) water having a bromine residual derived from a halogen stabilizer, a bromine source and an alkali metal base or alkaline earth metal base; or

4) water having a bromine residual derived from a mixture or combination of any two of 1), 2), and 3), or of all three of 1), 2) and 3); and

B) causing the carcass that was washed in A) to be placed in a chill tank and brought into contact with chill water which is composed of a microbiocidal composition selected from the group consisting of (1), (2), (3), and (4) as described in A) hereof, said carcass being in said chill water for a period of time that is at least sufficient for the carcass to reach a pre-selected low temperature;

the halogen residuals in A) and in B) being sufficient to provide microbiocidal activity without significant adverse effect upon the taste, odor, or appearance of the carcass.

32. The improvement as in Claim 31 wherein a mechanically transported series of poultry carcasses is automatically transported into apparatus in which the poultry carcass is subjected to said inside-outside washing in A).

33. The improvement as in Claim 32 wherein in said inside-outside washing, the interior cavity of a transported poultry carcass is penetrated by a spray probe so that (i) contaminants together with (ii) microbiocidal water solution that is sprayed into the interior cavity of the poultry by the probe, drain from the carcass.

34. The improvement as in Claim 33 wherein in said inside-outside washing, pressurized sprays of the microbiocidal water solution are applied to the exterior of the carcass so that the exterior of the carcass is thoroughly cleansed, and optionally the exterior of the carcass is also automatically mechanically scrubbed.

35. The improvement as in any of Claims 31-34 wherein the microbiocidal composition used in A) and in B) is a composition of 1).

36. The improvement as in any of Claims 31-34 wherein the microbiocidal composition used in A) and in B) is a composition of 2).

37. The improvement as in any of Claims 31-34 wherein the microbiocidal composition used in A) and in B) is a composition of 3).